



## NERVE AGENTS

### Agent Overview:

Nerve Agents [e.g. Sarin (GB), Soman (GD), Tabun (GA), VX] are rapidly acting and highly toxic. A range of symptoms results upon exposure: incontinence, pinpoint pupils, chest tightness, shortness of breath, nausea, vomiting, runny nose, excessive salivation and sweating, abdominal cramps, muscle twitching, confusion, seizures, paralysis, coma, respiratory paralysis, and death (SLUDGE - Salivation, Lacrimation, Urination, Defecation, GI Distress, and Emesis) and (DUMBELLS - Defecation/Diaphoresis, Urination, Miosis, Bradycardia, Emesis, Lacrimation, Lethargy, Salivation) are acronyms used for a quick differential for OP poisoning in mass casualty incidents or field triage.) Incapacitating effects occur within minutes. Fatal effects occur within minutes for GA, GB and GD; and within hours for VX. Mark I kits, comprised of a two-component system, may be used in the field on persons suspected of nerve agent or organophosphate pesticide exposure. Dose is based on the severity of signs and symptoms and age of patient.

### Lab Specimen Submittal:

Authorization by Dr. Jane Getchell, Director DPHL; Christina Pleasanton, Deputy Director DPHL; or Tara Lydick, Chemical Terrorism Coordinator.

### Type of Specimens

Urine: 25mL-50mL screw-cap container

### Necessary for Testing:

Whole blood:

- Three, 5 or 7 mL purple-top (EDTA) tubes (vacuum fill only) AND
- One, 5 or 7 mL gray-top or green-top (vacuum fill only) AND
- Two empty urine cups and two empty blood tubes for each lot # submitted.

### Packaging Instructions:

Urine: freeze specimen upon collection and ship on dry ice; label specimens and package individually; wrap with absorbent material.

Whole blood: place filled tubes in a shipping rack for stability, wrap the tubes in absorbent material, and secure with tape. Place the packaged tubes in a secondary unbreakable container. Specimens may be shipped cold but *must not* be frozen.

All: wrap sample containers and layers with tamper-proof, waterproof forensic evidence tape initialed by collector, being careful not to cover the sample labels. Ship to DPHL as Biological Substance, Category B (Packing Instruction 650).

### Receiving Specimens at DPHL:

Authorized specimens are received at the lab's rear (loading dock) entrance. Submitters must present ID and complete proper forms.

### Handling of Specimens:

Follow chain of custody procedures. Freeze urine specimens.

### Reporting Results:

Reference laboratory will notify DPHL as soon as possible. The Potential Exposure Call Log and Information form will provide information for notification of testing results outside of the DPHL.

### Contact Information:

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